

10/594450

IAP01 Rec'd PCT/PTO 26 SEP 2006

Translation of the pertinent portions of a Notification Advising the Forwarding of the International Search Report and the Written Notification from the International Searching Authority or the Declaration, mailed 11/23/2005

This International Search Report comprises a total of 8 pages. Copies of the documents cited in this report are also enclosed.

3. Lack of Unity of the Invention (see Field III)

4. Regarding the title of the invention:

X the wording filed by Applicant is approved.

5. Regarding the abstract:

X the wording filed by Applicant is approved.

6. Fig. 1, as selected by the Office, is to be published with the abstract, since Applicant has not proposed a drawing figure.

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FURTHER STATEMENTS

The International Searching Authority has determined that this international application contains several (groups of) inventions, namely:

1. Claims: 1, 2, 4-11, 19, 24-28, 32, 39-40, 42-43

The device is equipped with a guide rail, which extends past the superstructure in the direction of the transverse device.

2. Claims: 3-43, 44-51

A device containing several guide rails, whose guide elements terminate in a common guide rail upstream of the superstructure and downstream of the transverse cutting device, or a method wherein the webs of material are conducted in the guide rails and are combined downstream of the superstructure.

3. Claim 52

A method with a pair of draw-in rollers which can be brought into engagement with each other.

4. Claims: 53-54

A method wherein the holding element in the guide rail transports the web of material from the roll changer as far as the transverse cutting device.

5. Claims 12-18, depending from claim 1 or 2

Transverse cutting device and clipping device for a paper web.

6. Claims 20-23, depending from claim 1 or 2

Storage device for receiving holding elements.

7. Claims 29-31, depending from claim 1 or 2

Glue-preparation device

8. Claims 33-35, depending from claim 1 or 2

Radius of curvature of the guide chain

9. Claims 36-38 and 42, depending from claim 1 or 2
Arrangement of several formers and roll changers.

INTERNATIONAL SEARCH REPORT

International application No.
PCT/EP2005/051207

Box I Observations where certain claims were found unsearchable (Continuation of item 1 of first sheet)

This international search report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1. ☐ Claims Nos.:
because they relate to subject matter not required to be searched by this Authority, namely:

2. ☐ Claims Nos.:
because they relate to parts of the international application that do not comply with the prescribed requirements to such an extent that no meaningful international search can be carried out, specifically:

3. ☐ Claims Nos.:
because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

Box II Observations where unity of invention is lacking (Continuation of item 2 of first sheet)

This International Searching Authority found multiple inventions in this international application, as follows:

see supplemental sheet

1. ☐ As all required additional search fees were timely paid by the applicant, this international search report covers all searchable claims.
2. ☐ As all searchable claims could be searched without effort justifying an additional fee, this Authority did not invite payment of any additional fee.
3. ☒ As only some of the required additional search fees were timely paid by the applicant, this international search report covers only those claims for which fees were paid, specifically claims Nos.:

Claims 1, 2, 4-11, 19, 24-28, 32, 39, 40, 42, 43 and 52; claims 12-18 if dependent on claims 1 or 2; claims 32-35 if dependent on claims 1 or 2

4. ☐ No required additional search fees were timely paid by the applicant. Consequently, this international search report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:

Remark on Protest ☐ The additional search fees were accompanied by the applicant's protest.
☐ No protest accompanied the payment of additional search fees.

INTERNATIONAL SEARCH REPORT

International application No.

PCT/EP2005/051207

Box III.3

Claims 1, 2, 4-11, 19, 24-28, 32, 39, 40, 42, 43 and 52; claims 12-18 if dependent on claims 1 or 2; claims 32-35 if dependent on claims 1 or 2

PCT/ISA/210

The International Searching Authority has determined that this international application contains multiple (groups of) inventions, as follows:

1. Claims: 1, 2, 4-11, 19, 24-28, 32, 39-40, 42-43
device equipped with a guide rail which extends over the superstructure and beyond towards the cross-cutting structure
2. Claims: 3-43, 44-51
device having a plurality of guide rails whose guide pieces open into a common guide rail after the superstructure and before the cross-cutting structure, and process in which the material webs are guided in the guide rails and united after the superstructure
3. Claim: 52
process with an adjustable pair of drawing rollers
4. Claims: 53-54
process in which the holding means convey the material web in the guide rail from the roller changer to the cross-cutting structure
5. Claims: 12-18, if dependent on claims 1 or 2
cross-cutting device and clipping device for paper webs
6. Claims: 20-23, if dependent on claims 1 or 2
container for storing holding means
7. Claims 29-31, if dependent on claims 1 or 2
glueing preparation device
8. Claims: 33-35, if dependent on claims 1 or 2
curvature radius of the guide chain
9. Claims: 36-38 and 42, if dependent on claims 1 or 2
arrangement of a plurality of formers and roller changers

WRITTEN REPORT FROM THE INTERNATIONAL SEARCHING AUTHORITY

1. This report contains information regarding the following items:

Field No. I Basis of the Report
Field No. IV Lack of Unity of the Invention
Field No. V Reasoned Determination under Rule
43bis.1(a)(i)

Field No. I Basis of the Report

[Nothing is marked in this section]

Field No. IV Lack of Unity of the Invention

1. Upon the request for payment of additional fees,
Applicant has

paid additional fees.

3. The Office is of the opinion that the requirement of
unity of the invention in accordance with Rule 13.1, 13.2 and 13.3

has not been met for the following reasons:

see the attached page

4. The report has therefore been prepared for the
following portions of the international application:

the portions relating to claims with the following numbers:

1, 2, 4 - 11, 12 to 14, 16 to 18, 19, 24 to 28, 32 to 35,
39 to 40, 42, 43, 52.

Field No. V Reasoned Determination under Rule 43bis.1(a)(i)

1. Determination

Novelty

Yes: Claims 5-11, 19, 25-28

No: Claims 1, 2, 4, 24, 32, 39, 40, 42, 43,
52

Inventive Activities

Yes: Claims

No: Claims 5-11, 12-18, 19-25-28, 33-
35

Commercial Applicability Yes: Claims 1,2,4,11,24-28,32,39,40,
42,43

No: Claims

2. Documents and Explanations:

see the attached sheet

ATTACHED SHEET

Re.: Item IV

The different inventions/groups of inventions are:

I. Claims 1,2,4-11,19,24-28,32,39-40,42,43

The device is equipped with a guide rail, which extends past the superstructure in the direction of the transverse cutting device.

II. Claims 3 to 43, 44 to 51

A device having a plurality of guide rails, whose guide elements terminate in a common guide rail upstream of the superstructure and downstream of the transverse cutting device, or a method, wherein the webs of material are conducted in the guide rails and are combined downstream of the superstructure.

III. Claim 52

A method with a pair of draw-in rollers which can be engaged.

IV. Claims 53 to 54

A method in accordance with which the holding element in the guide rail transports the web of material from the roll changer to the transverse cutting device.

V. Claims 12 to 18 depending from claims 1 or 2

A transverse cutting device and a clipping device for a paper web.

VI. Claims 20 to 23 depending from claims 1 or 2

A storage device for receiving holding elements.

VII. Claims 24 to 31 depending from claims 1 or 2

A glue-preparation device.

VIII. Claims 32 to 38 depending from claims 1 or 2

A radius of curvature of the guide chain.

IX. Claims 36-38 and 42 depending from claims 1 or 2

An arrangement of several formers and roll changers.

For the following reasons these inventions/groups of inventions are not connected in such a way that they would realize a single common inventive idea (Rule 13.1 PCT):

Document EP-A-1 334 940 (D1) discloses a device for drawing in a continuous web (140) containing several webs (05, 06, 07, 08) of material into a folding apparatus having a superstructure, at least one former (18), a transverse cutting device (paragraph [0078]) for separating webs of material, which are transported in the superstructure and are folded at the former, into individual products, and at least one guide rail (80, 88, 89, 94, 96), on which a holding element (33, 34, 35) to which a leading edge of at least one web of material can be fastened is displaceably guided through the superstructure along a route of this web of material, wherein the guide rail extends past the superstructure into the former (Figs. 1, 2), or up to the transverse folding device (paragraph [78] to [80]). In this way D1 discloses all common characteristics of independent claims 1 to 3, 44, 52 and 53.

The characteristics, by means of which the independent claims differ from each other, are:

1. A device for drawing-in a web of material in accordance with claims 1 and 2, wherein the guide rail extends past the superstructure. The device attains the object of simplifying the automatic draw-in of a web of material into a former.

2. A device for drawing-in a web of material in accordance with claim 3, which has a plurality of guide rails, whose guide elements terminate in a common guide rail upstream of the superstructure and downstream of the transverse cutting device, or a method in accordance with claims 44 and 46, wherein the webs of material are conducted in the guide rails and are combined downstream of the superstructure. The device or the method attain the object of combining several folded webs before they are cut into individual products by means of the transverse cutting device.

3. A method in accordance with claim 52, wherein the folding apparatus has a pair of draw-in rollers, which has means for detecting the passage of a paper web through the disengaged pair of draw-in rollers, wherein the pair of draw-in rollers is brought into engagement following the passage of the paper web. The method attains the object of assuring a preset tractive force on the paper web.

4. A method in accordance with claim 53, wherein the holding element is transported in the guide rail of the web of material from the roll changer to the transverse cutting device. The method attains the object of securely transporting the web of material from the roll changer to the transverse cutting device.

The characteristics or attainments mentioned in items 1 to 4 do not have a common inventive idea.

Moreover, dependent claims 4 to 43 are split into several sub-groups, which are neither connected with each other by a common inventive idea nor by common characteristics, since all characteristics of independent claims 1 and 2 from which dependent claims 4 to 43 depend, are disclosed by D1, i.e. are not novel (see the analysis of the characteristics of paragraph 1).

Re.: Item V

1. Reference is made to the following documents:

D1 to D7

2. Novelty and Inventive Activities

2.1 Novelty

The present invention does not meet the requirements of Article 33(1) PCT, because the subject of claims 1, 2, 4, 24, 32, 39, 40, 42, 43 and 53 is not novel within the meaning of Article 33(2) PCT.

Document D1 discloses all characteristics of claims 1 and 2 (see the analysis of characteristics under Item IV). The characteristics of dependent claims 4, 24, 32, 39, 40, 42 and 43 are also disclosed in D1 (see Figs. 1, 2, 23 in particular). Document D5 discloses a method for drawing a web of material into a folding apparatus of a printing press (paragraph [0022]), wherein the folding apparatus has a disengaged pair of draw-in rollers during the drawing in of a web of material (see col. 21, lines 35 to 37), where the passage of the leading edge of the web of material is detected by the pair of draw-in rollers during the draw-in process, the rollers of the pair are engaged after detecting the passage and before the leading edge reaches the downstream-connected transverse cutting device (col. 18, line 24) and are thus driven in a controlled manner (col. 21, lines 38 to 41). A tractive force on the continuous web is created by engaging the rollers. The device disclosed in D5 meets the characteristic that "the tractive force approaches a desired value provided for continuous printing operations", since neither is a

desired value defined, and furthermore an approach to some arbitrary value exists anyway.

Accordingly, the subject of claim 52 is also not novel within the meaning of Article (33)2 PCT.

2.2 Inventive Activities

The embodiment of a guide rail, such as described in claims 6, 7, 10 and 25 to 28, is known to one skilled in the art from D2, D3 or D4. Transferring these guide rails with the appropriate characteristics from an upstream-connected printing press to a succeeding folding apparatus does not require any inventive activities and is a part of the normal professional activities of one skilled in the art, since the guide rail must be matched to certain "obstacles" both in the printing press as well as in a folding apparatus.

The characteristics of claims 5, 8, 9, 11, 15 and 19 are merely one of several obvious options from which one skilled in the art would make a selection in accordance with the circumstances without inventive actions in order to attain the stated object. Accordingly, the subject of claims 5 to 11, 19 and 25 to 28 is not based on inventive activities within the meaning of Article 33(3) PCT.

In Fig. 2 and on page 8, second paragraph, to page 9, second paragraph, Document D6 discloses a transverse cutting device with two pairs of cutting cylinders, wherein the transverse cutting device has a cutter cylinder, a folding blade cylinder and spur needles (213) designed as a holding system. The first transverse cutting device (202) can transversely cut off a portion of the paper web, which is skewered by the spur needles and is conducted into the waste container 215. Thus, in addition to the first transverse cutting device 203, the device in accordance with D6 contains a second transverse cutting device 202, which can also be considered to be a clipping device. This clipping device 202 is also capable of meeting the functional characteristic, namely of cutting white paper waste at the front off the webs of material. The inlet of the transverse cutting device 203 is arranged in the extension of the passage direction of the webs of material through the clipping device 202, wherein the transverse cutting device is arranged vertically underneath the clipping device.

Document D1 discloses a device in accordance with claim 1 or 2, the arrangement and construction of the transverse cutting device will not be discussed in detail. It is therefore the object of the present invention to embody a transverse cutting device for the device in accordance with D1. One skilled in the

art finds a description of a transverse cutting device in D5, which is suited for the device described in D1. It was therefore obvious to one skilled in the art to provide the transverse cutting device described in D5 in connection with a device in accordance with D1 and in this way to arrive at the subject of claims 12 to 14 and 16 to 18 without having to be inventively active.

In column 11, lines 12 to 32, document D7 discloses a holding element with a finite chain having rollers 70 with a longitudinal shafts (71), wherein the shafts are maintained in fork-like holders 72, 73, which constitute a chain link. The chain links can be connected with each other by ball-shaped connectors in order to lend the chain three degrees of freedom (col. 11, lines 30 to 32). Accordingly, the chain can also be curved transversely in respect to the transport direction, so that in the curved state the virtual longitudinal axes intersect in one point. The selection of the radius of curvature here is a function of the local conditions of the machine, so that no inventive activities can be assigned to this selection. Accordingly, the subject of claims 33 to 35 is not based on inventive activities within the meaning of Article 33(3) PCT.